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1-24-14

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
War Memorial Hospital HG Spill - Removal Polrep
Final Removal Polrep

US EPA RECORDS CENTER REGION 5



457103



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #2
War Memorial Hospital HG Spill

Sault Ste Marie, MI
Latitude: 46.4978594 Longitude: -84.3497483

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Date: 1/24/2014

Reporting

Period:

1. Introduction

1.1 Background

Site Number:	C51C	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	PRP	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	1/13/2014	Start Date:	1/13/2014
Demob Date:	1/21/2014	Completion Date:	1/24/2014
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

On January 13, 2014, elemental mercury was released from two blood monitoring devices located in a private Doctor's office located on the grounds of War Memorial Hospital in Sault Saint Marie Michigan. The War Memorial Hospital Life Safety Specialist contacted the U.S. EPA for support.

1.1.2 Site Description

Releases were located in a private Doctor's office in a separate building on the grounds of War Memorial Hospital in Sault Saint Marie Michigan.

1.1.2.1 Location

The releases occurred on the grounds of the War Memorial Hospital in Sault Saint Marie Michigan

1.1.2.2 Description of Threat

The release of mercury on the hospital grounds resulted in a threat to the patients and staff from mercury vapors resulting from the spill. In addition, workers and patients may have tracked mercury throughout the office, hospital, or in their work and personal vehicles, and potentially to their homes.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Released mercury was located in the two rooms containing the broken instruments with beads identified on the floor directly below where the former instruments were located. Mercury vapors were also identified in two vacuums used for general cleaning in the office complex.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Elemental mercury was released from a blood monitoring instrument and detected via observation of small beads of mercury on the floor below the instrument on January 13, 2014. Although the release occurred in a private doctor's office the office was located in a separate building on the property of the War Memorial Hospital. The War Memorial Hospital Life Safety Specialist contacted the U.S. EPA for support on January 13, 2014. The Chippewa County Health Department – Public Health Emergency Preparedness, Chippewa County Health Department – Environmental Health, and the Michigan Department of Community Health were notified. Although the hospital has removed these types of mercury devices throughout the grounds, this office was used by a private doctor. Four other similar mercury instruments were also located in the office and small mercury beads were noted under a second one. The two rooms containing mercury beads were sealed off by closing the door and putting

a towel below the door. In addition, the heating and ventilation system servicing these two rooms was turned off and the windows were opened to cool down the room. The PRP hired a mercury cleanup contractor to arrive on site January 14, 2014.

War Memorial Hospital Life Safety Specialist reported the release to the NRC on January 13, 2014 at 17:03 after having requested the assistance of the U.S. EPA at 1200 on that same day. The U.S. EPA tasked START to respond with a Lumex to assist with the characterization of the release. Upon arrival on site a preliminary assessment was conducted with the Chippewa County Health Department – Public Health Emergency Preparedness, Chippewa County Health Department – Environmental Health, and the War Memorial Hospital Life Safety Specialist. In addition, available shoes, cleaning supplies, and two vacuum cleaners used the previous evening were assessed and isolated if impacted. Elevated mercury vapor readings were detected throughout the building with readings generally below 400 ng/m³ except for the two release areas (Exam room #1 and Exam room #2) and two vacuum cleaners used in the building. Both vacuum cleaners were clearly impacted so they were put in plastic bags and removed to a secure area for later disposal. In the two exam rooms, small beads of elemental mercury were observed on the carpet below where the instruments were located. Mercury vapors in the two exam rooms were kept low by the cool temperatures and natural venting via the open windows.

The PRP secured a cleanup contractor, Northern A1 from Kalkaska, Michigan and scheduled them to arrive on site on January 14, 2014. Northern A-1 began cleaning up the visible mercury beads with a vacuum designed for use with mercury. The cleanup continued by removing the carpet in both exam rooms while monitoring the vapor concentrations (clean up operations were temporarily suspended once while mercury vapor concentrations were allowed to be vented from the building). Further cleanup consisted of applying a material (HGX) designed to lower vapor levels followed by venting.

Cleanup activities continued on January 15, 2014 after vapor readings indicated mercury contamination was still present in both exam rooms. Drywall and glue on the floor that was determined to be contaminated was removed in both exam rooms and another application of HGX. A meeting was held among key hospital staff, the health department, the cleanup contractor, the EPA contractor, and the EPA (via phone) to review the cleanup to date. Based on the discussions at the meeting the private doctors offices operating on hospital property were searched and an additional five outdated mercury meters were located for disposal (set up a plan to replace meters and then the old ones will be removed).

2.1.2 Response Actions to Date

As of the evening of January 15, 2014, a total of five mercury instruments, two vacuum cleaners, the removed carpet, along with other mercury impacted debris from the doctors office were containerized in five 55 gallon drums and removed to a secure area for later disposal by the cleanup contractor. In addition five other instruments were discovered in private doctors offices on hospital grounds.

Between January 15 and January 21, several additional cleanup attempts were required before residual mercury vapor levels were consistently sustained below the cleanup target of 1000 ng/l established by the local/state health departments.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Cleanup was performed by the facility

2.1.4 Progress Metrics

This is an Integrated River Assessment. The numbers should overlap.	Miles of river systems cleaned and/or restored	0
	Cubic yards of contaminated sediments removed and/or capped	0
	Gallons of oil/water recovered	0
	Acres of soil/sediment cleaned up in floodplains and riverbanks	0
Stand Alone Assessment	Acres Protected	0.5
	Number of contaminated residential yards cleaned up	0
	Human Health Exposures Avoided	0
	Number of workers on site	10
Contaminant(s) of Concern		
elemental mercury		
Oil response Tracking NA		
Estimated volume		
CANAPS Info		
	FPN Number	
	Body of Water affected	

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
hg debris	drums/solid	10 drums(2000 lbs)			
elemental hg	liquid	25 ml			

2.2 Planning Section

2.2.1 Anticipated Activities

Northern A1 to continue final closure (NIOSH 6009) sampling by 1-24

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

2.2.2 Issues

2.3 Logistics Section

Nothing to report

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

Nothing to report

2.5.2 Liaison Officer

Nothing to report

2.5.3 Information Officer

Nothing to report

3. Participating Entities

3.1 Unified Command

Not applicable

3.2 Cooperating Agencies

Michigan Department of Community Health

Chippewa County Health Department

War Memorial Hospital

4. Personnel On Site

War Memorial Hospital 1 person on day 1, 2, and 3

Chippewa County Health Department - 2 personnel day 1,

START - 1 personnel day 1-7

Cleanup Contractor (including hired sub for closure testing) - 2 to 3 personnel on day 2-7

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.